



SEQUENCE LISTING

<110> Landes, Gregory M.
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<120> ANTIBODIES AGAINST T CELL IMMUNOGLOBULIN
DOMAIN AND MUCIN DOMAIN 1 (TIM-1) ANTIGEN AND USES THEREOF

<130> ABXCUR.006A

<140> 10/805,177

<141> 2004-03-19

<150> 60/456,652

<151> 2003-03-19

<160> 141

<170> FastSEQ for Windows Version 4.0

<210> 1

<211> 509

<212> DNA

<213> Homo Sapiens

<400> 1

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aagaaccagt tctccctgaa gctgagctct gtgaccgctg cggacgcggc cgtgtattac 300
tgtgcgagag attatgactg gagcttcac tttgactact ggggccaggg aaccctggtc 360
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<210> 2

<211> 121

<212> PRT

<213> Homo Sapiens

<400> 2

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Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Val Ser Ser Gly
 20             25             30
Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
 35             40             45
Trp Ile Gly Phe Ile Tyr Tyr Thr Gly Ser Thr Asn Tyr Asn Pro Ser
 50             55             60
Leu Lys Ser Arg Val Ser Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
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65		70		75		80								
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			85				90						95	
Cys	Ala	Arg	Asp	Tyr	Asp	Trp	Ser	Phe	His	Phe	Asp	Tyr	Trp	Gln
			100				105						110	
Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala						
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<210> 3
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 <212> DNA
 <213> Homo Sapiens

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 cagtctccat cctccctgtc tgcattctata ggagacagag tcaccatcac ttgccgggca 120
 agtcagggca ttagaaatga tttaggctgg tatcagcaga aaccagggaa agcccctaag 180
 cgctgatct atgctgcac cagtttgcaa agtgggggtcc catcaagggt cagcggcagt 240
 ggatctggga cagaattcac tctcacaatc agcagcctgc agcctgaaga ttttgcaact 300
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 atcaaacgaa ctgtggctgc accatctgtc ttcatcttcc cgccatctga tgagcagttg 420
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<210> 4
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 <212> PRT
 <213> Homo Sapiens

<400> 4
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 20 25 30
 Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
 35 40 45
 Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
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 85 90 95
 Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
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<210> 5
 <211> 469
 <212> DNA
 <213> Homo Sapiens

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 caggctccag ggaaggggct ggagtgggtg gccaacatac agcaagatgg aagtgagaaa 180
 tactatgtgg actctgtgag gggccgattc accatctcca gagacaacgc caagaactca 240
 ctgtatctgc aaatgaacag cctgagagcc gaggactcgg ctgtgtatta ctgtgcgaga 300
 tgggactact ggggccaggg aacctggtc accgtctcct cagcctccac caagggccca 360
 tcggtcttcc cctggcgcc ctgctccagg agcacctccg agagcacagc ggccctgggc 420

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469

<210> 6
 <211> 113
 <212> PRT
 <213> Homo Sapiens

<400> 6
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 20 25 30
 Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Asn Ile Gln Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val
 50 55 60
 Arg Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Ser Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Trp Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 100 105 110
 Ala

<210> 7
 <211> 454
 <212> DNA
 <213> Homo Sapiens

<400> 7
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 caaagcctcg tacacagtga tggaaacacc tacttgaatt ggcttcagca gaggccaggc 180
 cagcctccaa gactcctaatt ttatatgatt tctaaccggt tctctgggggt cccagacaga 240
 ttcagtggca gtggggcagg gacagatttc aactgaaaa tcagcagggt ggaagctgag 300
 gatgtcgggg tttattactg catgcaagct acagaatctc ctcagacgtt cggccaaggg 360
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 gatgagcagt tgaaatctgg aagggcctct gttg 454

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 <211> 113
 <212> PRT
 <213> Homo Sapiens

<400> 8
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 20 25 30
 Asp Gly Asn Thr Tyr Leu Asn Trp Leu Gln Gln Arg Pro Gly Gln Pro
 35 40 45
 Pro Arg Leu Leu Ile Tyr Met Ile Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
 85 90 95
 Thr Glu Ser Pro Gln Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys

100 105 110

Arg

<210> 9
 <211> 529
 <212> DNA
 <213> Homo Sapiens

<400> 9
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 ctggagtgagg ttggccgtat taaaaggaga actgatgggtg ggacaacaga ctacgctgca 180
 cccgtgaaag gcagattcac catctcaaga gatgattcaa aaaacacgct gtatctgcaa 240
 atgaacaacc tgaaaaacga ggacacagcc gtgtattact gtacctcagt cgataatgac 300
 gtggactact gggggccaggg aaccctggtc accgtctcct cagcttccac caagggccca 360
 tccgtcttcc ccctggcgcc ctgctccagg agcacctccg agagcacagc cgccctgggc 420
 tgcctgggtca aggactactt ccccgaaccg gtgacgggtg cgtggaactc aggcgccttg 480
 accagcggcg tgcacacctt cccggctgtc ctacagtcct caggactct 529

<210> 10
 <211> 119
 <212> PRT
 <213> Homo Sapiens

<400> 10
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 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ala
 20 25 30
 Trp Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Gly Arg Ile Lys Arg Arg Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
 50 55 60
 Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
 65 70 75 80
 Leu Tyr Leu Gln Met Asn Asn Leu Lys Asn Glu Asp Thr Ala Val Tyr
 85 90 95
 Tyr Cys Thr Ser Val Asp Asn Asp Val Asp Tyr Trp Gly Gln Gly Thr
 100 105 110
 Leu Val Thr Val Ser Ser Ala
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<210> 11
 <211> 447
 <212> DNA
 <213> Homo Sapiens

<400> 11
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 aagccagggc agtctccaca gctcctgac tatttgggtt ctaatcgggc ctccggggtc 180
 cctgacaggt tcagtggcag tggatcaggc acagatttta cactgaaaat cagcagagtg 240
 gaggtgagg atattgggtct ttattactgc atgcaagtc taaaaactcc gctcactttc 300
 ggcggagggg ccaaggtgga catcaaacga actgtggctg caccatctgt cttcatcttc 360
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 ttctatccca gagaggccaa agtacag 447

<210> 12
 <211> 113
 <212> PRT
 <213> Homo Sapiens

<400> 12
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 1 5 10 15
 Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
 20 25 30
 Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35 40 45
 Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Ile Gly Leu Tyr Tyr Cys Met Gln Ala
 85 90 95
 Leu Gln Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Asp Ile Lys
 100 105 110
 Arg

<210> 13
 <211> 538
 <212> DNA
 <213> Homo Sapiens

<400> 13
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 tcctgtgcag cctctggatt caccttcagt acctatagca tgaactgggt ccgccaggct 120
 ccagggaagg ggctggagtg ggtttcatac attagaagta gtactagtac catatactat 180
 gcagagtccc tgaagggccg attcaccatc tccagcgaca atgccaagaa ttcactatat 240
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 gtcttcccc tggcgccctg ctccaggagc acctccgaga gcacagccgc cctgggctgc 420
 ctgggtcaagg actacttccc cgaaccggtg acgggtgtcgt ggaactcagg cgccctgacc 480
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<210> 14
 <211> 114
 <212> PRT
 <213> Homo Sapiens

<400> 14
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 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
 20 25 30
 Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Tyr Ile Arg Ser Ser Thr Ser Thr Ile Tyr Tyr Ala Glu Ser Leu
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Ser Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Asp Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
 100 105 110

Ser Ala

<210> 15
 <211> 490
 <212> DNA
 <213> Homo Sapiens

<400> 15
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 cttcagcaga ggccaggcca gcctccaaga ctcttaattt ataagatttc taccgggttc 180
 tctgggggtcc ctgacagatt cagtggcagt ggggcaggga cagatttcac actgaaaatc 240
 agcagggtgg agactgacga tgtcgggatt tattactgca tgcaaactac acaaattcct 300
 caaatcacct tcggccaagg gacacgactg gagattaaac gaactgtggc tgcaccatct 360
 gtcttcatct tcccgccatc tgatgagcag ttgaaatctg gaactgcctc tgttggtgtc 420
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<210> 16
 <211> 114
 <212> PRT
 <213> Homo Sapiens

<400> 16
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 Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
 20 25 30
 Asp Gly Asp Thr Tyr Leu Asn Trp Leu Gln Gln Arg Pro Gly Gln Pro
 35 40 45
 Pro Arg Leu Leu Ile Tyr Lys Ile Ser Thr Arg Phe Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Thr Asp Asp Val Gly Ile Tyr Tyr Cys Met Gln Thr
 85 90 95
 Thr Gln Ile Pro Gln Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
 100 105 110
 Lys Arg

<210> 17
 <211> 568
 <212> DNA
 <213> Homo Sapiens

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 ccaggcaagg ggctgaaatg ggtggcagtt atatggtatg atggaagtaa taaactctat 180
 gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cagcgtgtat 240
 ctgcaaataa acagcctgag agccgaggac acggctgtgt attactgtgc gagagattac 300
 tatgataata gtagacatca ctgggggttt gactactggg gccagggaac cctggtcacc 360
 gtctcctcag cttccaccaa gggcccatcc gtcttcccc tggcgccttg ctccaggagc 420
 acctccgaga gcacagccgc cctgggctgc ctggtcaagg actacttccc cgaaccggtg 480
 acggtgtcgt ggaactcagg cgccctgacc agcggcgtgc acaccttccc ggctgtccta 540
 cagtcctcag gactctactc cctcagca 568

<210> 18
 <211> 124
 <212> PRT
 <213> Homo Sapiens

<400> 18
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 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Arg Tyr
 20 25 30
 Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Lys Trp Val
 35 40 45
 Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Leu Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Asp Tyr Tyr Asp Asn Ser Arg His His Trp Gly Phe Asp Tyr
 100 105 110
 Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala
 115 120

<210> 19
 <211> 472
 <212> DNA
 <213> Homo Sapiens

<400> 19
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 gggaaagccc ctaagctcct gatctatgct gcatccagtt tgcaaagtgg ggtcccatcc 180
 aggttcagtg gcagtgatc tgggacagat ttcactctca ccatcagcag tctgcaacct 240
 gaagattttg caacttacta ctgtcaacag agttacagta cccctccgac gttcggccaa 300
 gggaccaagg tggaaatcaa acgaactgtg gctgcacat ctgtcttcat cttcccgcca 360
 tctgatgagc agttgaaatc tggaactgcc tctgttgtgt gcctgctgaa taacttctat 420
 cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg ta 472

<210> 20
 <211> 108
 <212> PRT
 <213> Homo Sapiens

<400> 20
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 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Tyr Ser Tyr
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Pro
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
 100 105

<210> 21
 <211> 528
 <212> DNA
 <213> Homo Sapiens

<400> 21
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 ggattcactt tcagtaacgc ctggatgacc tgggtccgcc aggctccagg gaaggggctg 120
 gagtgggttg gccgtattaa aaggaaaact gatgggtggga caacagacta cgctgcaccc 180
 gtgaaaggca gattcaccat ctcaagagat gattcagaaa acacgctgta tctgcaaatg 240
 aacagcctgg aaaccgagga cacagccgtg tattactgta ccacagtcga taacagtggg 300
 gactactggg gccaggggaa cctggtcacc gtctcctcag cttccaccaa gggcccatcc 360
 gtcttcccc tggcgccctg ctccaggagc acctccgaga gcacagccgc cctgggctgc 420
 ctgggtcaagg actacttccc cgaaccggtg acgggtgtcgt ggaactcagg cgccctgacc 480
 agcggcgtgc acaccttccc ggctgtccta cagtcctcag gactctct 528

<210> 22
 <211> 119
 <212> PRT
 <213> Homo Sapiens

<400> 22
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 20 25 30
 Trp Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Gly Arg Ile Lys Arg Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
 50 55 60
 Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Glu Asn Thr
 65 70 75 80
 Leu Tyr Leu Gln Met Asn Ser Leu Glu Thr Glu Asp Thr Ala Val Tyr
 85 90 95
 Tyr Cys Thr Thr Val Asp Asn Ser Gly Asp Tyr Trp Gly Gln Gly Thr
 100 105 110
 Leu Val Thr Val Ser Ser Ala
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<210> 23
 <211> 466
 <212> DNA
 <213> Homo Sapiens

<400> 23
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 ccagggcagt ctccacagct cctgatctat ttgggttcta atcgggcctc cgggggtccct 180
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<210> 24
 <211> 113
 <212> PRT

<213> Homo Sapiens

<400> 24

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Asn Asn Asn Asn Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
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Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
          20          25          30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
          35          40          45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
          50          55          60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
65          70          75          80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
          85          90          95
Leu Gln Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys
          100          105          110
Arg

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<210> 25

<211> 537

<212> DNA

<213> Homo Sapiens

<400> 25

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ccaggcaagg ggctggattg ggtggcagtt atatggtatg atggaagtca taaattctat 180
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctcttt 240
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gactactggg gccaggaac cctggtcacc gtctcctcag ctccaccaaa gggcccatcc 360
gtcttcccc tggcgccctg ctccaggagc acctccgaga gcacagccgc cctgggctgc 420
ctgggtcaagg actacttccc cgaaccgggtg acgggtgtcgt ggaactcagg cgccctgacc 480
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<210> 26

<211> 114

<212> PRT

<213> Homo Sapiens

<400> 26

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Gln Val Gln Leu Glu Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
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Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Thr Asn Tyr
          20          25          30
Gly Leu His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Asp Trp Val
          35          40          45
Ala Val Ile Trp Tyr Asp Gly Ser His Lys Phe Tyr Ala Asp Ser Val
          50          55          60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe
65          70          75          80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
          85          90          95
Thr Arg Asp Leu Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
          100          105          110
Ser Ala

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<210> 27
 <211> 480
 <212> DNA
 <213> Homo Sapiens

<400> 27
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 ctctcctgca gggccagtc gagtggttagc aacaactact tagcctggta ccagcagaaa 120
 cctggccagg ctcccaggct cctcatctat ggtgcatcca gcagggccac tggcatccca 180
 gacaggttca gtggcagtg gtctgggaca gacttcactc tcaccatcag cagactggag 240
 cctgaagatt gtgcagagt ttactgtcag caatatggta gctcactccc gctcactttc 300
 ggcggaggga ccaaggtgga gatcaaacga actgtggctg caccatctgt cttcatcttc 360
 ccgcatctg atgagcagtt gaaatctgga actgcctctg ttgtgtgcct gctgaataac 420
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<210> 28
 <211> 110
 <212> PRT
 <213> Homo Sapiens

<400> 28
 Glu Thr Gln Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly
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 Glu Arg Val Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Asn Asn
 20 25 30
 Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu
 35 40 45
 Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser
 50 55 60
 Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu
 65 70 75 80
 Pro Glu Asp Cys Ala Glu Cys Tyr Cys Gln Gln Tyr Gly Ser Ser Leu
 85 90 95
 Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg
 100 105 110

<210> 29
 <211> 542
 <212> DNA
 <213> Homo Sapiens

<400> 29
 gtccagtgtc aggtgcagct ggtggagtct gggggaggcg tgggtccagcc tgggaggtcc 60
 ctgagactct cctgtgcagc gtctggattc accttcagta gctatggcat gcactgggtc 120
 cgccaggctc caggcaaggg gctggagtgg gtggcagtta tatggtatga tgggaagtcac 180
 aaatactatg cagactccgt gaagggccga ttcaccatct ccagagacaa ttccaagaac 240
 acgctgtatc tgcaaatgaa cagcctgaga gccgaggaca cggctgtgta ttactctgcg 300
 agagattact atgatacgag tcggcatcac tgggggtttg actgctgggg ccaggggaacc 360
 ctggtcaccg tctcctctgc ttccaccaag ggcccatccg tcttccccct ggcgccctgc 420
 tccaggagca cctccgagag cacagccgcc ctgggctgcc tggtaagga ctacttcccc 480
 gaaccggtga cgggtgtcgtg gaactcaggc gccctgacca gcggcgtgca caccttcccc 540
 gc 542

<210> 30
 <211> 124
 <212> PRT
 <213> Homo Sapiens

<400> 30

```

Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
 1              5              10              15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
              20              25              30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
              35              40              45
Ala Val Ile Trp Tyr Asp Gly Ser His Lys Tyr Tyr Ala Asp Ser Val
              50              55              60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65              70              75              80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Ser
              85              90              95
Ala Arg Asp Tyr Tyr Asp Thr Ser Arg His His Trp Gly Phe Asp Cys
              100              105              110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala
              115              120

```

<210> 31

<211> 521

<212> DNA

<213> Homo Sapiens

<400> 31

```

cagctcctgg ggctgctaata gctctgggtc cctggatcca gtgaggaaat tgtgatgacc 60
cagactccac tctccctgcc cgtcaccctt ggagagccgg cctccatctc ctgcaggtct 120
agtcagagcc tcttgatag tgaagatgga aacacctatt tggactggta cctgcagaag 180
ccagggcagt ctccacagct cctgatctat acgctttccc atcgggcttc tggagtccca 240
gacaggttca gtggcagtggt gtcaggcact gatttcacac tgaaaatcag cagggtggag 300
gctgaggatg ttggagttaa ttgctgcatg caacgtgtag agtttcctat caccttcggc 360
caagggacac gactggagat taaacgaact gtggctgcac catctgtctt catcttccc 420
ccatctgatg agcagttgaa atctggaact gcctctgttg tgtgcctgct gaataacttc 480
tatcccagag aggccaaagt acagtggaag gtggataacg c 521

```

<210> 32

<211> 114

<212> PRT

<213> Homo Sapiens

<400> 32

```

Glu Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly
 1              5              10              15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser
              20              25              30
Glu Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
              35              40              45
Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser His Arg Ala Ser Gly Val
              50              55              60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65              70              75              80
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Cys Cys Met Gln
              85              90              95
Arg Val Glu Phe Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
              100              105              110
Lys Arg

```

<210> 33
 <211> 547
 <212> DNA
 <213> Homo Sapiens

<400> 33
 cagtcggggcc caagactgggt gaagccttca cagaccctgt ccctcacctg cactgtctct 60
 ggtggctcca tcagtagtga tggttactac tggagctgga tccgccagca cccagggag 120
 ggcctggagt ggattgggta catctattac agtgggagca ccttctacaa cccgtccctc 180
 aagagtcgag ttgccatata agtggacacg tctaagaacc agttctccct gaagctgagc 240
 tctgtgactg ccgcggaacac ggccgtgtat tactgtgcga gagaatcccc tcatagcagc 300
 aactgggtact cgggctttga ctgctggggc cagggaaacc tggtcaccgt ctctcagct 360
 tccaccaagg gcccatccgt cttccccctg gcgccctgct ccaggagcac ctccgagagc 420
 acagccgccc tgggctgcct ggtcaaggac tactttcccc gaaccgggtga cgggtgctgtg 480
 gaactcaggc gccctgacca gcggcgtgca caccttcccc gctgtcctac agtcctcagg 540
 actctct 547

<210> 34
 <211> 125
 <212> PRT
 <213> Homo Sapiens

<400> 34
 Asn Asn Asn Asn Asn Gln Ser Gly Pro Arg Leu Val Lys Pro Ser Gln
 1 5 10 15
 Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Asp
 20 25 30
 Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
 35 40 45
 Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Phe Tyr Asn Pro Ser
 50 55 60
 Leu Lys Ser Arg Val Ala Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
 65 70 75 80
 Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
 85 90 95
 Cys Ala Arg Glu Ser Pro His Ser Ser Asn Trp Tyr Ser Gly Phe Asp
 100 105 110
 Cys Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala
 115 120 125

<210> 35
 <211> 450
 <212> DNA
 <213> Homo Sapiens

<400> 35
 actcagtctc cagactttca gtctgtgact ccaaaggaga aagtcacccat cacctgccgg 60
 gccagtcaga gcattggtag taggttacac tggtagcagc agaaaccaga tcagtctcca 120
 aagctcctca tcaagtatgc ttcccagtc tctcagggg tcccctcgag gttcagtggc 180
 agtggatctg ggacagattt caccctcacc atcaatagcc tggaagctga agatgctgca 240
 acgtattact gtcatcagag tagtaattta ccattcactt tcggccctgg gaccaaagtg 300
 gatataaaac gaactgtggc tgcaccatct gtcttcatct tcccgccatc tgatgagcag 360
 ttgaaatctg gaactgcctc tgttgtgtgc ctgctgaata acttctatcc cagagaggcc 420
 aaagtacagt ggaaggtgga taacgccctc 450

<210> 36
 <211> 108
 <212> PRT
 <213> Homo Sapiens

<400> 36

```

Asn Asn Asn Asn Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
 1           5           10           15
Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Arg
          20           25           30
Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
          35           40           45
Lys Tyr Ala Ser Gln Ser Phe Ser Gly Val Pro Ser Arg Phe Ser Gly
          50           55           60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala
65           70           75           80
Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Ser Ser Asn Leu Pro Phe
          85           90           95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg
          100           105

```

<210> 37

<211> 534

<212> DNA

<213> Homo Sapiens

<400> 37

```

cagggtgcagc tgggtggaggc tggggggaggc gtgggtccagc ctggggaggct cctgagactc 60
tcctgtgcag cgtctggatt caccttcaga agctatggca tgcactgggt cgcaggct 120
ccaggcaagg ggctgaaatg ggtggcagtt atatggtatg atggaagtaa taaatactat 180
acagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 240
ctgcaaataa acagcctgag agccgaggac acggctgtgt attactgtgt gagagattac 300
tatgataata gtagacatca ctgggggttt gactactggg gccagggaac cctgggtcacc 360
gtctcctcag cttccaccaa gggcccatcc gtcttcccc tggcgccctg ctccaggagc 420
acctccgaga gcacagccgc cctgggctgc ctggtcaagg actacttccc cgaaccggtg 480
acggtgtcgt ggaactcagg cgccctgacc aggcggcgtg cacaccttcc cggc 534

```

<210> 38

<211> 124

<212> PRT

<213> Homo Sapiens

<400> 38

```

Gln Val Gln Leu Val Glu Ala Gly Gly Gly Val Val Gln Pro Gly Arg
 1           5           10           15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser Tyr
          20           25           30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Lys Trp Val
          35           40           45
Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Thr Asp Ser Val
          50           55           60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65           70           75           80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
          85           90           95
Val Arg Asp Tyr Tyr Asp Asn Ser Arg His His Trp Gly Phe Asp Tyr
          100           105           110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala
          115           120

```

<210> 39

<211> 470

<212> DNA
<213> Homo Sapiens

<400> 39
gacatccaga tgaccagtc tccatcctcc cggtgtgcat ccgtaggaga cagagtcacc 60
atcacttgcc gggcaagtca gggcatcaga aatgatttag ctgggtatca gcagaaacca 120
gggaaagccc ctaagcgctt gatctatgct gcatccagtt tgcaaagtgg ggtcccatca 180
aggttcagcg gcagtagatc tgggacagaa ttcactctca caatcagcag cctgcagcct 240
gaagattttg cagcttatta ctgtctccag cataatagtt accctcccag ttttgccag 300
gggaccaagc tggagatcaa acgaactgtg gctgcacat ctgtcttcat cttcccgcca 360
tctgatgagc agttgaaatc tgggaactgtg agcgttgtgt gcctgctgaa taacttctat 420
cccagagagg ccaaagtaca gtggaaggtg gataacgccc tccaatcggg 470

<210> 40
<211> 108
<212> PRT
<213> Homo Sapiens

<400> 40
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Arg Cys Ala Ser Val Gly
1 5 10 15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
20 25 30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35 40 45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50 55 60
Ser Arg Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65 70 75 80
Glu Asp Phe Ala Ala Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Pro
85 90 95
Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
100 105

<210> 41
<211> 514
<212> DNA
<213> Homo Sapiens

<400> 41
catgtgcagg tgcagctggt ggagctctggg ggaggcgtgg tccagcctgg gaggtccctg 60
agactctcct gtgcagcgtc tggattcatc ttcagtcgct atggcatgca ctgggtccgc 120
caggctccag gcaaggggct gaaatgggtg gcagttatat ggtagatgg aagtaataaa 180
ctctatgcag actccgtgaa gggccgattc accatctcca gagacaattc caagaacacg 240
ctgtatctgc aaatgaacag cctgagagcc gaggacacgg ctgtgtatta ctgtgcgaga 300
gattactatg ataatagtag acatcactgg gggtttgact actggggcca gggaaccctg 360
gtcaccgtct cctcagcttc caccaagggc ccatccgtct tccccctggc gccctgctcc 420
aggagcacct ccgagagcac agccgccctg ggctgcctgg tcaaggacta cttccccgaa 480
ccggtgacgg tgtcgtggaa ctccaggcgc ctga 514

<210> 42
<211> 124
<212> PRT
<213> Homo Sapiens

<400> 42
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1 5 10 15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ile Phe Ser Arg Tyr

<400> 43						
tcagctcctg	gggctgctaa	tgctctgggt	ccctggatca	gtgaggatat	tgtgatgacc	60
cagactccac	tctccctgcc	cgtcacccct	ggagagccgg	cctccatctc	ctgcaggtct	120
agtcggagcc	tcttg gatag	tgatgatgga	aacacctatt	tggactggta	cctgcagaag	180
ccagggcagt	ctccacagct	cctgatctac	acgctttcct	atcgggcctc	tggagtccca	240
gacaggttca	gtggcagtg	gtcaggcact	gatttcacac	tgaaaatcag	caggggtggag	300
gctgaggatg	ttggagttta	ttactgcatg	caacgtgtag	agtttcctat	caccttcggc	360
caagggacac	gactggagat	taaacgaact	gtggctgcac	catctgtctt	catcttcccg	420
ccatctgatg	agcagttgaa	atctggaact	gcctctgttg	tgtgcctgct	gaataacttc	480
tatcccagaq	aggccaaagt	acagtggaaq	qtggataacq	cct		523

```

<400> 44
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly
 1          5          10          15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Arg Ser Leu Leu Asp Ser
          20          25          30
Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
          35          40          45
Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val
          50          55          60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65          70          75          80
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln
          85          90          95
Arg Val Glu Phe Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
          100          105          110
Lys Arg

```

<http://genescape.curagen.com/cgi-bin/ip/FileWrapper.pl?mode=FILE&file=10574...> 11/16/2004

<400> 45

```

gagcagtcgg ggggcggcgt ggtccagcct gggaggtccc tgagactctc ctgtgcagcg 60
tctggattca ctttcagtag ctatggcatg tactgggtcc gccaggctcc aggcaagggg 120
ctggagtggg tggcagttat atggtatgat ggaagcaata aatactatgc agactccgtg 180
aagggccgat tcaccatctc cagagacaat tccaagaaca cgctgtatct gcaaataaac 240
agcctgagag ccgaggacac ggctgtgtat tactgtgcga gggatttcta tgatagtagt 300
cgttaccact acggtatgga cgtctggggc caagggacca cggtcaccgt ctccctcagct 360
tccaccaagg gcccatccgt cttccccctg gcgccttctt ccaggagcac ctccgagagc 420
acagccgccc tgggctgcct ggtcaaggac tacttccccg aaccggtgac ggtgtcgtgg 480
aactcaggcg ccctgaccag cggcgtgcac accttccccg ctgtcctaca gtcctcagga 540
ctctct

```

<210> 46

<211> 124

<212> PRT

<213> Homo Sapiens

<400> 46

```

Asn Asn Asn Asn Glu Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1      5      10      15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20      25      30
Gly Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35      40      45
Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50      55      60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65      70      75      80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85      90      95
Ala Arg Asp Phe Tyr Asp Ser Ser Arg Tyr His Tyr Gly Met Asp Val
100     105     110
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala
115     120

```

<210> 47

<211> 419

<212> DNA

<213> Homo Sapiens

<400> 47

```

actcagtgtc cactctccct gcccgtcacc cctggagagc cggcctccat ctccctgcagg 60
tctagtcaga gcctcttggg tagtgatgat ggaaacacct atttgactg gtacctgcag 120
aagccagggc agtctccaca gtcctgatc tatacggttt cctatcgggc ctctggagtc 180
ccagacaggt tcagtggcag tgggtcaggc actgatttca cactgaaaat cagcaggggtg 240
gaggctgagg atgttggagt ttattactgc atgcaacgta tagagtttcc gatcaccttc 300
ggccaaggga cccgactgga gattaaacga actgtggctg caccatctgt cttcatcttc 360
ccgccatctg atgagcagtt gaaatctgga actgcctctg ttgtgtgcct gctgaataa 419

```

<210> 48

<211> 114

<212> PRT

<213> Homo Sapiens

<400> 48

```

Asn Asn Asn Asn Thr Gln Cys Pro Leu Ser Leu Pro Val Thr Pro Gly
1      5      10      15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser
20      25      30

```



```

Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
   35         40         45
Ser Pro Gln Leu Leu Ile Tyr Thr Val Ser Tyr Arg Ala Ser Gly Val
   50         55         60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65         70         75         80
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln
           85         90         95
Arg Ile Glu Phe Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
           100        105        110
Lys Arg

```

```

<210> 49
<211> 789
<212> DNA
<213> Homo Sapiens

```

```

<400> 49
tctgtaaagg ttggtggaga ggcagggtcca tctgtcacac taccctgccca ctacagtgga 60
gctgtcacat caatgtgctg gaatagaggc tcatgttctc tattcacatg ccaaaatggc 120
attgtctgga ccaatggaac ccacgtcacc tatcggaagg acacacgcta taagctattg 180
ggggaccttt caagaaggga tgtctctttg accatagaaa atacagctgt gtctgacagt 240
ggcgtatatt gttgccgtgt tgagcaccgt ggggtggttca atgacatgaa aatcaccgta 300
tcattggaga ttgtgccacc caagggtcacg actactccaa ttgtcacaac tgttccaacc 360
gtcacgactg ttccaacgag caccactgtt ccaacgacaa cgactgttcc aacgacaact 420
gttccaacaa caatgagcat tccaacgaca acgactgttc cgacgacaat gactgtttca 480
acgacaacga gcgttccaac gacaacgagc attccaacaa caacaagtgt tccagtgaca 540
acaacggtct ctacctttgt tcttccaatg cctttgcccc ggcagaacca tgaaccagta 600
gccacttcac catcttcacc tcagccagca gaaaccaccc ctacgacact gcagggagca 660
ataaggagag aaccaccag ctcaccattg tactcttaca caacagatgg gaatgacacc 720
gtgacagagt cttcagatgg cctttggaat aacaatcaaa ctcaactgtt cctagaacat 780
agtctactg                                     789

```

```

<210> 50
<211> 263
<212> PRT
<213> Homo Sapiens

```

```

<400> 50
Ser Val Lys Val Gly Gly Glu Ala Gly Pro Ser Val Thr Leu Pro Cys
 1         5         10        15
His Tyr Ser Gly Ala Val Thr Ser Met Cys Trp Asn Arg Gly Ser Cys
20        25        30
Ser Leu Phe Thr Cys Gln Asn Gly Ile Val Trp Thr Asn Gly Thr His
35        40        45
Val Thr Tyr Arg Lys Asp Thr Arg Tyr Lys Leu Leu Gly Asp Leu Ser
50        55        60
Arg Arg Asp Val Ser Leu Thr Ile Glu Asn Thr Ala Val Ser Asp Ser
65        70        75        80
Gly Val Tyr Cys Cys Arg Val Glu His Arg Gly Trp Phe Asn Asp Met
85        90        95
Lys Ile Thr Val Ser Leu Glu Ile Val Pro Pro Lys Val Thr Thr Thr
100       105       110
Pro Ile Val Thr Thr Val Pro Thr Val Thr Thr Val Arg Thr Ser Thr
115       120       125
Thr Val Pro Thr Thr Thr Thr Val Pro Thr Thr Thr Val Pro Thr Thr
130       135       140
Met Ser Ile Pro Thr Thr Thr Thr Val Pro Thr Thr Met Thr Val Ser

```

```

145          150          155          160
Thr Thr Thr Ser Val Pro Thr Thr Thr Ser Ile Pro Thr Thr Thr Ser
165          170          175
Val Pro Val Thr Thr Val Ser Thr Phe Val Pro Pro Met Pro Leu
180          185          190
Pro Arg Gln Asn His Glu Pro Val Ala Thr Ser Pro Ser Ser Pro Gln
195          200          205
Pro Ala Glu Thr His Pro Thr Thr Leu Gln Gly Ala Ile Arg Arg Glu
210          215          220
Pro Thr Ser Ser Pro Leu Tyr Ser Tyr Thr Thr Asp Gly Asn Asp Thr
225          230          235          240
Val Thr Glu Ser Ser Asp Gly Leu Trp Asn Asn Asn Gln Thr Gln Leu
245          250          255
Phe Leu Glu His Ser Leu Leu
260

```

```

<210> 51
<211> 114
<212> PRT
<213> Homo Sapiens

```

```

<400> 51
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1      5      10      15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20     25     30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35     40     45
Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50     55     60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65     70     75     80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85     90     95
Ala Arg Asn Asn Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
100    105    110
Ser Ala

```

```

<210> 52
<211> 124
<212> PRT
<213> Homo Sapiens

```

```

<400> 52
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
1      5      10      15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20     25     30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35     40     45
Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50     55     60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65     70     75     80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85     90     95
Ala Asn Asn Asn Tyr Asp Ser Ser Asn Asn Asn Tyr Gly Met Asp Val

```

```

      100      105      110
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala
      115      120

```

```

<210> 53
<211> 125
<212> PRT
<213> Homo Sapiens

```

```

<400> 53
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Gln
  1          5          10          15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Ile Ser Ser Gly
      20          25          30
Gly Tyr Tyr Trp Ser Trp Ile Arg Gln His Pro Gly Lys Gly Leu Glu
      35          40          45
Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Tyr Tyr Asn Pro Ser
      50          55          60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
      65          70          75          80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
      85          90          95
Cys Ala Arg Asn Asn Asn Ser Ser Ser Trp Tyr Asn Asn Phe Asp
      100          105          110
Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala
      115          120          125

```

```

<210> 54
<211> 124
<212> PRT
<213> Homo Sapiens

```

```

<400> 54
Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro Gly Arg
  1          5          10          15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
      20          25          30
Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
      35          40          45
Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
      50          55          60
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
      65          70          75          80
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
      85          90          95
Ala Arg Asp Tyr Tyr Asp Ser Ser Asn Asn Asn Asn Asn Phe Asp Tyr
      100          105          110
Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala
      115          120

```

```

<210> 55
<211> 119
<212> PRT
<213> Homo Sapiens

```

```

<400> 55
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly

```

```

      1           5           10           15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ala
      20           25           30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
      35           40           45
Gly Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
      50           55           60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
      65           70           75           80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
      85           90           95
Tyr Cys Thr Asn Asn Asp Asn Asn Asn Asp Tyr Trp Gly Gln Gly Thr
      100           105           110
Leu Val Thr Val Ser Ser Ala
      115

```

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<210> 56
<211> 121
<212> PRT
<213> Homo Sapiens

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<400> 56
Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val Lys Pro Ser Glu
      1           5           10           15
Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser Val Ser Ser Gly
      20           25           30
Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly Lys Gly Leu Glu
      35           40           45
Trp Ile Gly Tyr Ile Tyr Tyr Ser Gly Ser Thr Asn Tyr Asn Pro Ser
      50           55           60
Leu Lys Ser Arg Val Thr Ile Ser Val Asp Thr Ser Lys Asn Gln Phe
      65           70           75           80
Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Thr Ala Val Tyr Tyr
      85           90           95
Cys Ala Arg Asn Asn Asn Trp Asn Asn Asn Phe Asp Tyr Trp Gly Gln
      100           105           110
Gly Thr Leu Val Thr Val Ser Ser Ala
      115           120

```

```

<210> 57
<211> 119
<212> PRT
<213> Homo Sapiens

```

```

<400> 57
Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Lys Pro Gly Gly
      1           5           10           15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ala
      20           25           30
Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
      35           40           45
Gly Arg Ile Lys Ser Lys Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
      50           55           60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
      65           70           75           80
Leu Tyr Leu Gln Met Asn Ser Leu Lys Thr Glu Asp Thr Ala Val Tyr
      85           90           95
Tyr Cys Thr Thr Asn Asn Asn Ser Gly Asp Tyr Trp Gly Gln Gly Thr

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100 105 110
 Leu Val Thr Val Ser Ser Ala
 115

<210> 58
 <211> 113
 <212> PRT
 <213> Homo Sapiens

<400> 58
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ala Asn Ile Lys Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Arg Asn Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser
 100 105 110
 Ala

<210> 59
 <211> 114
 <212> PRT
 <213> Homo Sapiens

<400> 59
 Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1 5 10 15
 Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
 20 25 30
 Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35 40 45
 Ser Tyr Ile Ser Ser Ser Ser Thr Ile Tyr Tyr Ala Asp Ser Val
 50 55 60
 Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser Leu Tyr
 65 70 75 80
 Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr Tyr Cys
 85 90 95
 Ala Asn Asn Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
 100 105 110
 Ser Ala

<210> 60
 <211> 110
 <212> PRT
 <213> Homo Sapiens

<400> 60
 Glu Ile Val Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly

1				5				10				15			
Glu	Arg	Ala	Thr	Leu	Ser	Cys	Arg	Ala	Ser	Gln	Ser	Val	Ser	Ser	Ser
			20					25					30		
Tyr	Leu	Ala	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Gln	Ala	Pro	Arg	Leu	Leu
		35					40					45			
Ile	Tyr	Gly	Ala	Ser	Ser	Arg	Ala	Thr	Gly	Ile	Pro	Asp	Arg	Phe	Ser
	50					55					60				
Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Arg	Leu	Glu
65					70					75					80
Pro	Glu	Asp	Phe	Ala	Val	Tyr	Tyr	Cys	Gln	Gln	Tyr	Gly	Ser	Ser	Asn
			85						90					95	
Asn	Leu	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg		
			100					105					110		

<210> 61
 <211> 113
 <212> PRT
 <213> Homo Sapiens

<400> 61

Asp	Ile	Val	Met	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly
1				5					10					15	
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser
			20					25					30		
Asn	Gly	Tyr	Asn	Tyr	Leu	Asp	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser
		35					40					45			
Pro	Gln	Leu	Leu	Ile	Tyr	Leu	Gly	Ser	Asn	Arg	Ala	Ser	Gly	Val	Pro
	50					55					60				
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile
65					70					75					80
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Ala
			85						90					95	
Leu	Gln	Thr	Asn	Asn	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys
			100					105					110		

Arg

<210> 62
 <211> 108
 <212> PRT
 <213> Homo Sapiens

<400> 62

Asp	Ile	Gln	Met	Thr	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser	Val	Gly
1				5					10					15	
Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Gly	Ile	Arg	Asn	Asp
			20					25					30		
Leu	Gly	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Arg	Leu	Ile
		35					40					45			
Tyr	Ala	Ala	Ser	Ser	Leu	Gln	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
	50					55					60				
Ser	Gly	Ser	Gly	Thr	Glu	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu	Gln	Pro
65					70					75					80
Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Leu	Gln	His	Asn	Ser	Tyr	Pro	Leu
			85						90					95	
Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg				
			100					105							

<210> 63
 <211> 114
 <212> PRT
 <213> Homo Sapiens

<400> 63
 Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
 1 5 10 15
 Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
 20 25 30
 Asp Gly Asn Thr Tyr Leu Ser Trp Leu Gln Gln Arg Pro Gly Gln Pro
 35 40 45
 Pro Arg Leu Leu Ile Tyr Lys Ile Ser Asn Arg Phe Ser Gly Val Pro
 50 55 60
 Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
 65 70 75 80
 Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
 85 90 95
 Thr Gln Phe Pro Asn Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
 100 105 110
 Lys Arg

<210> 64
 <211> 108
 <212> PRT
 <213> Homo Sapiens

<400> 64
 Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1 5 10 15
 Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Ser Ser Tyr
 20 25 30
 Leu Asn Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Leu Leu Ile
 35 40 45
 Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
 50 55 60
 Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
 65 70 75 80
 Glu Asp Phe Ala Thr Tyr Tyr Cys Gln Gln Ser Tyr Ser Thr Pro Pro
 85 90 95
 Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg
 100 105

<210> 65
 <211> 113
 <212> PRT
 <213> Homo Sapiens

<400> 65
 Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
 1 5 10 15
 Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
 20 25 30
 Asp Gly Asn Thr Tyr Leu Ser Trp Leu Gln Gln Arg Pro Gly Gln Pro
 35 40 45
 Pro Arg Leu Leu Ile Tyr Lys Ile Ser Asn Arg Phe Ser Gly Val Pro

```

      50              55              60
Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
65              70              75              80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
      85              90
Thr Gln Phe Pro Gln Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
      100              105              110
Arg

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```

<210> 66
<211> 114
<212> PRT
<213> Homo Sapiens

```

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<400> 66
Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly
1              5              10              15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser
      20              25              30
Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
      35              40              45
Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val
      50              55              60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65              70              75              80
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln
      85              90              95
Arg Ile Glu Phe Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
      100              105              110
Lys Arg

```

```

<210> 67
<211> 108
<212> PRT
<213> Homo Sapiens

```

```

<400> 67
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
1              5              10              15
Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Ser
      20              25              30
Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
      35              40              45
Lys Tyr Ala Ser Gln Ser Phe Ser Gly Val Pro Ser Arg Phe Ser Gly
      50              55              60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala
65              70              75              80
Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Ser Ser Ser Leu Pro Phe
      85              90              95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg
      100              105

```

```

<210> 68
<211> 108
<212> PRT

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<213> Homo Sapiens

<400> 68

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Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1           5           10           15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
          20           25           30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
          35           40           45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
          50           55           60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
65           70           75           80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Asn
          85           90           95
Asn Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
          100           105

```

<210> 69

<211> 113

<212> PRT

<213> Homo Sapiens

<400> 69

```

Asp Ile Val Met Thr Gln Thr Pro Leu Ser Ser Pro Val Thr Leu Gly
 1           5           10           15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
          20           25           30
Asp Gly Asn Thr Tyr Leu Ser Trp Leu Gln Gln Arg Pro Gly Gln Pro
          35           40           45
Pro Arg Leu Leu Ile Tyr Lys Ile Ser Asn Arg Phe Ser Gly Val Pro
          50           55           60
Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
65           70           75           80
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala
          85           90           95
Thr Gln Phe Pro Gln Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys
          100           105           110
Arg

```

<210> 70

<211> 114

<212> PRT

<213> Homo Sapiens

<400> 70

```

Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly
 1           5           10           15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser
          20           25           30
Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
          35           40           45
Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val
          50           55           60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65           70           75           80
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln

```

```

      85              90              95
Arg Ile Glu Phe Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
      100              105              110
Lys Arg

```

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<210> 71
<211> 108
<212> PRT
<213> Homo Sapiens

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```

<400> 71
Glu Ile Val Leu Thr Gln Ser Pro Asp Phe Gln Ser Val Thr Pro Lys
 1              5              10              15
Glu Lys Val Thr Ile Thr Cys Arg Ala Ser Gln Ser Ile Gly Ser Ser
      20              25              30
Leu His Trp Tyr Gln Gln Lys Pro Asp Gln Ser Pro Lys Leu Leu Ile
      35              40              45
Lys Tyr Ala Ser Gln Ser Phe Ser Gly Val Pro Ser Arg Phe Ser Gly
      50              55              60
Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Asn Ser Leu Glu Ala
      65              70              75              80
Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Ser Ser Ser Leu Pro Phe
      85              90              95
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg
      100              105

```

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<210> 72
<211> 108
<212> PRT
<213> Homo Sapiens

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<220>
<223> Xaa = any amino acid

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<400> 72
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Val Gly
 1              5              10              15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
      20              25              30
Leu Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
      35              40              45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
      50              55              60
Ser Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro
      65              70              75              80
Glu Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Xaa
      85              90              95
Xaa Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg
      100              105

```

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<210> 73
<211> 16
<212> DNA
<213> Homo Sapiens

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<400> 73

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ttactatgat aatagt	16
<210> 74	
<211> 15	
<212> DNA	
<213> Homo Sapiens	
<400> 74	
agacatcact ggggg	15
<210> 75	
<211> 17	
<212> DNA	
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<400> 75	
atagcagcaa ctggtac	17
<210> 76	
<211> 16	
<212> DNA	
<213> Homo Sapiens	
<400> 76	
ttactatgat aatagt	16
<210> 77	
<211> 15	
<212> DNA	
<213> Homo Sapiens	
<400> 77	
agacatcact ggggg	15
<210> 78	
<211> 16	
<212> DNA	
<213> Homo Sapiens	
<400> 78	
ttactatgat aatagt	16
<210> 79	
<211> 15	
<212> DNA	
<213> Homo Sapiens	
<400> 79	
agacatcact ggggg	15
<210> 80	
<211> 13	
<212> DNA	
<213> Homo Sapiens	
<400> 80	
ctatgatagt agt	13
<210> 81	
<211> 11	

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<212> DNA
<213> Homo Sapiens

<400> 81
ttactatgat a 11

<210> 82
<211> 20
<212> DNA
<213> Homo Sapiens

<400> 82
cgagtcggca tcactggggg 20

<210> 83
<211> 22
<212> DNA
<213> Homo Sapiens

<400> 83
caggtgcagc tggagcagtc gg 22

<210> 84
<211> 24
<212> DNA
<213> Homo Sapiens

<400> 84
gctgagggag tagagtcctg agga 24

<210> 85
<211> 19
<212> DNA
<213> Homo Sapiens

<400> 85
cacaccgcg tcacatggc 19

<210> 86
<211> 20
<212> DNA
<213> Homo Sapiens

<400> 86
ctactctagg gcacctgtcc 20

<210> 87
<211> 14
<212> PRT
<213> Homo Sapiens

<400> 87
Pro Met Pro Leu Pro Arg Gln Asn His Glu Pro Val Ala Thr
1 5 10

<210> 88
<211> 12
<212> PRT
<213> Homo Sapiens

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<400> 88
 Pro Met Pro Leu Pro Arg Gln Asn His Glu Pro Val
 1 5 10

<210> 89
 <211> 10
 <212> PRT
 <213> Homo Sapiens

<400> 89
 Pro Met Pro Leu Pro Arg Gln Asn His Glu
 1 5 10

<210> 90
 <211> 8
 <212> PRT
 <213> Homo Sapiens

<400> 90
 Pro Met Pro Leu Pro Arg Gln Asn
 1 5

<210> 91
 <211> 6
 <212> PRT
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<400> 91
 Pro Met Pro Leu Pro Arg
 1 5

<210> 92
 <211> 12
 <212> PRT
 <213> Homo Sapiens

<400> 92
 Pro Leu Pro Arg Gln Asn His Glu Pro Val Ala Thr
 1 5 10

<210> 93
 <211> 10
 <212> PRT
 <213> Homo Sapiens

<400> 93
 Pro Arg Gln Asn His Glu Pro Val Ala Thr
 1 5 10

<210> 94
 <211> 8
 <212> PRT
 <213> Homo Sapiens

<400> 94
 Gln Asn His Glu Pro Val Ala Thr
 1 5

<210> 95
 <211> 6
 <212> PRT
 <213> Homo Sapiens

<400> 95
 His Glu Pro Val Ala Thr
 1 5

<210> 96
 <211> 7
 <212> PRT
 <213> Homo Sapiens

<400> 96
 Pro Leu Pro Arg Asn His Glu
 1 5

<210> 97
 <211> 6
 <212> PRT
 <213> Homo Sapiens

<400> 97
 Leu Pro Arg Gln Asn His
 1 5

<210> 98
 <211> 10
 <212> PRT
 <213> Homo Sapiens

<400> 98
 Pro Met Pro Ala Pro Arg Gln Asn His Glu
 1 5 10

<210> 99
 <211> 10
 <212> PRT
 <213> Homo Sapiens

<400> 99
 Pro Met Pro Leu Ala Arg Gln Asn His Glu
 1 5 10

<210> 100
 <211> 10
 <212> PRT
 <213> Homo Sapiens

<400> 100
 Pro Met Pro Leu Pro Ala Gln Asn His Glu
 1 5 10

<210> 101
 <211> 10
 <212> PRT
 <213> Homo Sapiens

<400> 101
 Pro Met Pro Leu Pro Arg Ala Asn His Glu
 1 5 10

<210> 102
 <211> 10
 <212> PRT
 <213> Homo Sapiens

<400> 102
 Pro Met Pro Leu Pro Arg Gln Ala His Glu
 1 5 10

<210> 103
 <211> 10
 <212> PRT
 <213> Homo Sapiens

<400> 103
 Pro Met Pro Leu Pro Arg Gln Asn Ala Glu
 1 5 10

<210> 104
 <211> 8
 <212> PRT
 <213> Homo Sapiens

<400> 104
 Pro Leu Pro Arg Gln Asn His Glu
 1 5

<210> 105
 <211> 7
 <212> PRT
 <213> Homo Sapiens

<400> 105
 Leu Pro Arg Gln Asn His Glu
 1 5

<210> 106
 <211> 8
 <212> PRT
 <213> Homo Sapiens

<400> 106

Pro Leu Pro Arg Gln Asn His Glu

1 5

<210> 107

<211> 7

<212> PRT

<213> Homo Sapiens

<400> 107

Leu Pro Arg Gln Asn His Glu

1 5

<210> 108

<211> 882

<212> DNA

<213> Homo Sapiens

<400> 108

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atgaaatacc tgctgccgac cgctgctgct ggtctgctgc tcctcgctgc ccagccggcc 60
atggccgata ttgtgatgac ccagactcca ctctccctgc ccgtcaccce tggagagccg 120
gcctccatct cctgcaggtc tagtcggagc ctcttgata gtgatgatgg aaacacctat 180
ttggactggt acctgcagaa gccagggcag tctccacagc tcctgatcta cacgctttcc 240
tatcgggcct ctggagtccc agacagggtc agtggcagtg ggtcaggcac tgatttcaca 300
ctgaaaatca gcagggtgga ggctgaggat gttggagttt attactgcat gcaacgtgta 360
gagtttctta tcaccttcgg ccaagggaca cgactggaga ttaaactttc cgcgagcat 420
gcgaaaaagg atgctgcgaa gaaagatgac gctaagaaag acgatgctaa aaaggacctc 480
caggtgcagc tgggtggagtc tgggggaggc gtggtccagc ctgggaggtc cctgagactc 540
tcctgtgcag cgtctggatt catcttcagt cgctatggca tgcactgggt ccgccaggct 600
ccaggcaagg ggctgaaatg ggtggcagtt atatggtatg atggaagtaa taaactctat 660
gcagactccg tgaagggccg attcaccatc tccagagaca attccaagaa cacgctgtat 720
ctgcaaatga acagcctgag agccgaggac acggctgtgt attactgtgc gagagattac 780
tatgataata gtagacatca ctgggggttt gactactggg gccaggggaa cctgggtcacc 840
gtctcctcag ctagcgatta taaggacgat gatgacaaat ag 882

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<210> 109

<211> 271

<212> PRT

<213> Homo Sapiens

<400> 109

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Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly
1 5 10 15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Arg Ser Leu Leu Asp Ser
20 25 30
Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
35 40 45
Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val
50 55 60
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65 70 75 80
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln
85 90 95
Arg Val Glu Phe Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
100 105 110
Lys Leu Ser Ala Asp Asp Ala Lys Lys Asp Ala Ala Lys Lys Asp Asp
115 120 125

```


Ala	Lys	Lys	Asp	Asp	Ala	Lys	Lys	Asp	Leu	Gln	Val	Gln	Leu	Val	Glu
130					135						140				
Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg	Ser	Leu	Arg	Leu	Ser	Cys
145					150					155					160
Ala	Ala	Ser	Gly	Phe	Ile	Phe	Ser	Arg	Tyr	Gly	Met	His	Trp	Val	Arg
				165					170					175	
Gln	Ala	Pro	Gly	Lys	Gly	Leu	Lys	Trp	Val	Ala	Val	Ile	Trp	Tyr	Asp
			180					185					190		
Gly	Ser	Asn	Lys	Leu	Tyr	Ala	Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile
		195					200					205			
Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu
	210					215						220			
Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Asp	Tyr	Tyr	Asp
225					230					235					240
Asn	Ser	Arg	His	His	Trp	Gly	Phe	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu
			245					250						255	
Val	Thr	Val	Ser	Ser	Ala	Ser	Asp	Tyr	Lys	Asp	Asp	Asp	Asp	Lys	
			260					265						270	

<210> 110

<211> 1560

<212> DNA

<213> Homo Sapiens

<400> 110

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gatattgtga tgaccagac tccactctcc ctgcccgtca cccctggaga gccggcctcc 120
atctcctgca ggtctagtcg gagcctcttg gatagtgatg atggaaacac ctatttggac 180
tggtacctgc agaagccagg gcagtctcca cagctcctga tctacacgct ttcctatcgg 240
gcctctggag tcccagacag gttcagtggc agtgggtcag gcactgattt cactactgaaa 300
atcagcaggg tggaggctga ggatgttgga gtttattact gcatgcaacg ttagagattt 360
cctatcacct tcggccaagg gacacgactg gagattaaag gtgggtgggtg ttctggcggc 420
ggcggctccg gtgggtgggtg ttcccagggtg cagctgggtgg agtctggggg aggcgtgggtc 480
cagcctggga ggtccctgag actctcctgt gcagcgtctg gattcatctt cagtcgctat 540
ggcatgcact gggctccgcca ggctccaggc aaggggctga aatgggtggc agttatatgg 600
tatgatggaa gtaataaaact ctatgcagac tccgtgaagg gccgattcac catctccaga 660
gacaattcca agaacacgct gtatctgcaa atgaacagcc tgagagccga ggacacggct 720
gtgtattact gtgcgagaga ttactatgat aatagtagac atcactgggg gtttgactac 780
tggggccagg gaacctggt caccgtctcc tcaggagggt gtggatccga tatcaaactg 840
cagcagtcag gggctgaact ggcaagacct ggggcctcag tgaagatgtc ctgcaagact 900
tctggctaca cctttactag gtacacgatg cactgggtaa aacagaggcc tggacagggt 960
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ggaggttctg gtggaagtgg aggttcaggt ggagtcgacg acattcagct gaccagctct 1260
ccagcaatca tgtctgcatc tccaggggag aaggtcacca tgacctgcag agccagttca 1320
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tatgacacat ccaaagtggc ttctggagtc ccttatcgct tcagtggcag tgggtctggg 1440
acctcactat ctctcacaat cagcagcatg gaggtggaag atgctgccac ttattactgc 1500
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<210> 111

<211> 499

<212> PRT

<213> Homo Sapiens

<400> 111

Asp	Ile	Val	Met	Thr	Gln	Thr	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly
1				5					10					15	
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Arg	Ser	Leu	Leu	Asp	Ser
			20					25					30		
Asp	Asp	Gly	Asn	Thr	Tyr	Leu	Asp	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln
		35					40				45				
Ser	Pro	Gln	Leu	Leu	Ile	Tyr	Thr	Leu	Ser	Tyr	Arg	Ala	Ser	Gly	Val
		50				55					60				
Pro	Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys
65					70					75					80
Ile	Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln
				85					90					95	
Arg	Val	Glu	Phe	Pro	Ile	Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile
			100					105					110		
Lys	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser	Gly	Gly	Gly	Gly	Ser
		115					120					125			
Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
		130				135					140				
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Ile	Phe	Ser	Arg	Tyr
145					150					155					160
Gly	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Lys	Trp	Val
				165					170					175	
Ala	Val	Ile	Trp	Tyr	Asp	Gly	Ser	Asn	Lys	Leu	Tyr	Ala	Asp	Ser	Val
			180					185					190		
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr
		195					200					205			
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
		210				215					220				
Ala	Arg	Asp	Tyr	Tyr	Asp	Asn	Ser	Arg	His	His	Trp	Gly	Phe	Asp	Tyr
225					230					235					240
Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Gly	Gly	Gly	Gly	Ser
				245					250					255	
Asp	Ile	Lys	Leu	Gln	Gln	Ser	Gly	Ala	Glu	Leu	Ala	Arg	Pro	Gly	Ala
			260					265					270		
Ser	Val	Lys	Met	Ser	Cys	Lys	Thr	Ser	Gly	Tyr	Thr	Phe	Thr	Arg	Tyr
		275					280					285			
Thr	Met	His	Trp	Val	Lys	Gln	Arg	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Ile
	290				295						300				
Gly	Tyr	Ile	Asn	Pro	Ser	Arg	Gly	Tyr	Thr	Asn	Tyr	Asn	Gln	Lys	Phe
305					310					315					320
Lys	Asp	Lys	Ala	Thr	Leu	Thr	Thr	Asp	Lys	Ser	Ser	Ser	Thr	Ala	Tyr
			325						330					335	
Met	Gln	Leu	Ser	Ser	Leu	Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Tyr	Cys
			340					345					350		
Ala	Arg	Tyr	Tyr	Asp	Asp	His	Tyr	Cys	Leu	Asp	Tyr	Trp	Gly	Gln	Gly
		355					360					365			
Thr	Thr	Leu	Thr	Val	Ser	Ser	Val	Glu	Gly	Gly	Ser	Gly	Gly	Ser	Gly
	370					375					380				
Gly	Ser	Gly	Gly	Ser	Gly	Gly	Val	Asp	Asp	Ile	Gln	Leu	Thr	Gln	Ser
385					390					395					400
Pro	Ala	Ile	Met	Ser	Ala	Ser	Pro	Gly	Glu	Lys	Val	Thr	Met	Thr	Cys
			405						410					415	
Arg	Ala	Ser	Ser	Ser	Val	Ser	Tyr	Met	Asn	Trp	Tyr	Gln	Gln	Lys	Ser
			420					425					430		
Gly	Thr	Ser	Pro	Lys	Arg	Trp	Ile	Tyr	Asp	Thr	Ser	Lys	Val	Ala	Ser
		435					440					445			
Gly	Val	Pro	Tyr	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Ser	Tyr	Ser
	450					455					460				
Leu	Thr	Ile	Ser	Ser	Met	Glu	Ala	Glu	Asp	Ala	Ala	Thr	Tyr	Tyr	Cys
465					470					475					480

Gln Gln Trp Ser Ser Asn Pro Leu Thr Phe Gly Ala Gly Thr Lys Leu
 485 490 495
 Glu Leu Lys

<210> 112
 <211> 1635
 <212> DNA
 <213> Homo Sapiens

<400> 112
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 atctcctgca ggtctagtcg gagcctcttg gatagtgatg atggaaacac ctatttggac 180
 tggtagctgc agaagccagg gcagctctcca cagctcctga tctacacgct ttcctatcgg 240
 gcctctggag tcccagacag gttcagtgga agtgggtcag gcactgattt cacactgaaa 300
 atcagcaggg tggaggctga ggatgttgga gtttattact gcatgcaacg tgtagagttt 360
 cctatcacct tcggccaagg gacacgactg gagattaaac tttccgcgga cgatgcgaaa 420
 aaggatgctg cgaagaaaga tgacgctaag aaagacgatg ctaaaaagga cctgcaggtg 480
 cagctggtgg agtctggggg aggcgtgggtc cagcctggga ggtccctgag actctcctgt 540
 gcagcgtctg gattcatctt cagtcgctat ggcatgcact gggtcgcgca ggctccaggc 600
 aaggggctga aatgggtggc agttatatgg tatgatggaa gtaataaaact ctatgcagac 660
 tccgtgaagg gccgattcac catctccaga gacaattcca agaacacgct gtatctgcaa 720
 atgaacagcc tgagagccga ggacacggct gtgtattact gtgcgagaga ttactatgat 780
 aatagtagac atcactgggg gtttgactac tggggccagg gaaccctggt caccgtctcc 840
 tcaggagggtg gtggatccga tatcaaactg cagcagtcag gggctgaact ggcaagacct 900
 ggggcctcag tgaagatgtc ctgcaagact tctgggtaca cctttactag gtacacgatg 960
 cactgggtaa aacagaggcc tggacagggt ctggaatgga ttggatacat taatcctagc 1020
 cgtgggtata ctaattacaa tcagaagttc aaggacaagg ccacattgac tacagacaaa 1080
 tcctccagca cagcctacat gcaactgagc agcctgacat ctgaggactc tgcagtctat 1140
 tactgtgcaa gatattatga tgatcattac tgccttgact actggggcca aggcaccact 1200
 ctcacagtct cctcactttc cgcggacgat gcgaaaaagg atgctgcgaa gaaagatgac 1260
 gctaagaaaag acgatgctaa aaaggacctg gacattcagc tgaccagtc tccagcaatc 1320
 atgtctgcat ctccagggga gaaggtcacc atgacctgca gagccagttc aagtgttaagt 1380
 tacatgaact ggtaccagca gaagtcaggc acctcccca aaagatggat ttatgacaca 1440
 tccaaagtgg cttctggagt cccttatcgc ttcagtggca gtgggtctgg gacctcatc 1500
 tctctcacia tcagcagcat ggaggctgaa gatgctgcca cttattactg ccaacagtgg 1560
 agtagtaacc cgctcacgtt cggtgctggg accaagctgg agctgaaaga ttataaggac 1620
 gatgatgaca aatag 1635

<210> 113
 <211> 524
 <212> PRT
 <213> Homo Sapiens

<400> 113
 Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly
 1 5 10 15
 Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Arg Ser Leu Leu Asp Ser
 20 25 30
 Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
 35 40 45
 Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val
 50 55 60
 Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
 65 70 75 80
 Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln
 85 90 95
 Arg Val Glu Phe Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile

			100					105					110		
Lys	Leu	Ser	Ala	Asp	Asp	Ala	Lys	Lys	Asp	Ala	Ala	Lys	Lys	Asp	Asp
		115					120					125			
Ala	Lys	Lys	Asp	Asp	Ala	Lys	Lys	Asp	Leu	Gln	Val	Gln	Leu	Val	Glu
	130					135					140				
Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg	Ser	Leu	Arg	Leu	Ser	Cys
145					150					155					160
Ala	Ala	Ser	Gly	Phe	Ile	Phe	Ser	Arg	Tyr	Gly	Met	His	Trp	Val	Arg
				165					170					175	
Gln	Ala	Pro	Gly	Lys	Gly	Leu	Lys	Trp	Val	Ala	Val	Ile	Trp	Tyr	Asp
			180					185					190		
Gly	Ser	Asn	Lys	Leu	Tyr	Ala	Asp	Ser	Val	Lys	Gly	Arg	Phe	Thr	Ile
		195					200					205			
Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu
	210					215					220				
Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Asp	Tyr	Tyr	Asp
225					230					235					240
Asn	Ser	Arg	His	His	Trp	Gly	Phe	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Leu
				245					250					255	
Val	Thr	Val	Ser	Ser	Gly	Gly	Gly	Gly	Ser	Asp	Ile	Lys	Leu	Gln	Gln
			260					265					270		
Ser	Gly	Ala	Glu	Leu	Ala	Arg	Pro	Gly	Ala	Ser	Val	Lys	Met	Ser	Cys
		275					280					285			
Lys	Thr	Ser	Gly	Tyr	Thr	Phe	Thr	Arg	Tyr	Thr	Met	His	Trp	Val	Lys
	290					295					300				
Gln	Arg	Pro	Gly	Gln	Gly	Leu	Glu	Trp	Ile	Gly	Tyr	Ile	Asn	Pro	Ser
305					310					315					320
Arg	Gly	Tyr	Thr	Asn	Tyr	Asn	Gln	Lys	Phe	Lys	Asp	Lys	Ala	Thr	Leu
				325					330					335	
Thr	Thr	Asp	Lys	Ser	Ser	Ser	Thr	Ala	Tyr	Met	Gln	Leu	Ser	Ser	Leu
			340					345					350		
Thr	Ser	Glu	Asp	Ser	Ala	Val	Tyr	Tyr	Cys	Ala	Arg	Tyr	Tyr	Asp	Asp
		355					360					365			
His	Tyr	Cys	Leu	Asp	Tyr	Trp	Gly	Gln	Gly	Thr	Thr	Leu	Thr	Val	Ser
	370					375					380				
Ser	Leu	Ser	Ala	Asp	Asp	Ala	Lys	Lys	Asp	Ala	Ala	Lys	Lys	Asp	Asp
385					390					395					400
Ala	Lys	Lys	Asp	Asp	Ala	Lys	Lys	Asp	Leu	Asp	Ile	Gln	Leu	Thr	Gln
			405						410					415	
Ser	Pro	Ala	Ile	Met	Ser	Ala	Ser	Pro	Gly	Glu	Lys	Val	Thr	Met	Thr
			420					425					430		
Cys	Arg	Ala	Ser	Ser	Ser	Val	Ser	Tyr	Met	Asn	Trp	Tyr	Gln	Gln	Lys
		435					440					445			
Ser	Gly	Thr	Ser	Pro	Lys	Arg	Trp	Ile	Tyr	Asp	Thr	Ser	Lys	Val	Ala
	450														

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<210> 114
<211> 169
<212> PRT
<213> Homo Sapiens
```

<400> 114

```

Trp Val Leu Ser Gln Val Gln Leu Gln Glu Ser Gly Pro Gly Leu Val
 1          5          10          15
Lys Pro Ser Glu Thr Leu Ser Leu Thr Cys Thr Val Ser Gly Gly Ser
          20          25          30
Val Ser Ser Gly Gly Tyr Tyr Trp Ser Trp Ile Arg Gln Pro Pro Gly
          35          40          45
Lys Gly Leu Glu Trp Ile Gly Phe Ile Tyr Tyr Thr Gly Ser Thr Asn
          50          55          60
Tyr Asn Pro Ser Leu Lys Ser Arg Val Ser Ile Ser Val Asp Thr Ser
65          70          75          80
Lys Asn Gln Phe Ser Leu Lys Leu Ser Ser Val Thr Ala Ala Asp Ala
          85          90          95
Ala Val Tyr Tyr Cys Ala Arg Asp Tyr Asp Trp Ser Phe His Phe Asp
          100          105          110
Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr Lys
          115          120          125
Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu
          130          135          140
Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro
145          150          155          160
Val Thr Val Ser Trp Asn Ser Gly Ala
          165

```

<210> 115

<211> 168

<212> PRT

<213> Homo Sapiens

<400> 115

```

Gln Leu Leu Gly Leu Leu Leu Leu Trp Phe Pro Gly Ala Arg Cys Asp
 1          5          10          15
Ile Gln Met Thr Gln Ser Pro Ser Ser Leu Ser Ala Ser Ile Gly Asp
          20          25          30
Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp Leu
          35          40          45
Gly Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile Tyr
          50          55          60
Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly Ser
65          70          75          80
Gly Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro Glu
          85          90          95
Asp Phe Ala Thr Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Leu Thr
          100          105          110
Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val Ala Ala Pro
          115          120          125
Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr
          130          135          140
Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys
145          150          155          160
Val Gln Trp Lys Val Asp Asn Ala
          165

```

<210> 116

<211> 156

<212> PRT

<213> Homo Sapiens

```

<400> 116
Gln Cys Glu Val Gln Leu Val Glu Ser Gly Gly Gly Leu Val Gln Pro
 1          5          10          15
Gly Gly Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Thr
          20          25          30
Asn Tyr Trp Met Ser Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu
          35          40          45
Trp Val Ala Asn Ile Gln Gln Asp Gly Ser Glu Lys Tyr Tyr Val Asp
          50          55          60
Ser Val Arg Gly Arg Phe Thr Ile Ser Arg Asp Asn Ala Lys Asn Ser
65          70          75          80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Ser Ala Val Tyr
          85          90          95
Tyr Cys Ala Arg Trp Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val
          100          105          110
Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys
          115          120          125
Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys
130          135          140
Asp Tyr Phe Pro Glu Pro Val Ser Gly Val Val Glu
145          150          155

```

```

<210> 117
<211> 151
<212> PRT
<213> Homo Sapiens

```

```

<400> 117
Leu Leu Gly Leu Leu Met Leu Trp Val Pro Gly Ser Ser Gly Asp Ile
 1          5          10          15
Val Met Thr Gln Thr Pro Leu Ser Ser Thr Val Ile Leu Gly Gln Pro
          20          25          30
Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser Asp Gly
          35          40          45
Asn Thr Tyr Leu Asn Trp Leu Gln Gln Arg Pro Gly Gln Pro Pro Arg
          50          55          60
Leu Leu Ile Tyr Met Ile Ser Asn Arg Phe Ser Gly Val Pro Asp Arg
65          70          75          80
Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile Ser Arg
          85          90          95
Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln Ala Thr Glu
          100          105          110
Ser Pro Gln Thr Phe Gly Gln Gly Thr Lys Val Glu Ile Lys Arg Thr
          115          120          125
Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu
130          135          140
Lys Ser Gly Arg Ala Ser Val
145          150

```

```

<210> 118
<211> 180
<212> PRT
<213> Homo Sapiens

```

```

<220>
<223> Xaa = any amino acid
<400> 118

```

```

Xaa Xaa Xaa Xaa Glu Gln Ser Gly Gly Gly Val Val Lys Pro Gly Gly
 1      5      10
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Asn Ala
 20      25      30
Trp Met Thr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
 35      40      45
Gly Arg Ile Lys Arg Arg Thr Asp Gly Gly Thr Thr Asp Tyr Ala Ala
 50      55      60
Pro Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asp Ser Lys Asn Thr
 65      70      75      80
Leu Tyr Leu Gln Met Asn Asn Leu Lys Asn Glu Asp Thr Ala Val Tyr
 85      90      95
Tyr Cys Thr Ser Val Asp Asn Asp Val Asp Tyr Trp Gly Gln Gly Thr
 100      105      110
Leu Val Thr Val Ser Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro
 115      120      125
Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly
 130      135      140
Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn
 145      150      155      160
Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe Pro Ala Val Leu Gln
 165      170      175
Ser Ser Gly Leu
 180

```

```

<210> 119
<211> 152
<212> PRT
<213> Homo Sapiens

```

```

<220>
<223> Xaa = any amino acid

```

```

<400> 119
Xaa Xaa Xaa Leu Thr Gln Ser Pro Leu Ser Leu Pro Val Thr Pro Gly
 1      5      10      15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu His Ser
 20      25      30
Asn Gly Tyr Asn Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
 35      40      45
Pro Gln Leu Leu Ile Tyr Leu Gly Ser Asn Arg Ala Ser Gly Val Pro
 50      55      60
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile
 65      70      75      80
Ser Arg Val Glu Ala Glu Asp Ile Gly Leu Tyr Tyr Cys Met Gln Ala
 85      90      95
Leu Gln Thr Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Asp Ile Lys
 100      105      110
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu
 115      120      125
Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe
 130      135      140
Tyr Pro Arg Glu Ala Lys Val Gln
 145      150

```

```

<210> 120
<211> 179
<212> PRT

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<213> Homo Sapiens

<400> 120

```

Gln Val Gln Leu Glu Gln Ser Gly Gly Gly Leu Val Gln Pro Gly Gly
 1          5          10          15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Thr Tyr
          20          25          30
Ser Met Asn Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
          35          40          45
Ser Tyr Ile Arg Ser Ser Thr Ser Thr Ile Tyr Tyr Ala Glu Ser Leu
          50          55          60
Lys Gly Arg Phe Thr Ile Ser Ser Asp Asn Ala Lys Asn Ser Leu Tyr
65          70          75          80
Leu Gln Met Asn Ser Leu Arg Asp Glu Asp Thr Ala Val Tyr Tyr Cys
          85          90          95
Ala Arg Asp Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser
          100          105          110
Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser
          115          120          125
Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp
          130          135          140
Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr
145          150          155          160
Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr
          165          170          175
Ser Leu Ser

```

<210> 121

<211> 163

<212> PRT

<213> Homo Sapiens

<400> 121

```

Glu Ile Gln Leu Thr Gln Ser Pro Leu Ser Ser Pro Val Thr Leu Gly
 1          5          10          15
Gln Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Val His Ser
          20          25          30
Asp Gly Asp Thr Tyr Leu Asn Trp Leu Gln Gln Arg Pro Gly Gln Pro
          35          40          45
Pro Arg Leu Leu Ile Tyr Lys Ile Ser Thr Arg Phe Ser Gly Val Pro
          50          55          60
Asp Arg Phe Ser Gly Ser Gly Ala Gly Thr Asp Phe Thr Leu Lys Ile
65          70          75          80
Ser Arg Val Glu Thr Asp Asp Val Gly Ile Tyr Tyr Cys Met Gln Thr
          85          90          95
Thr Gln Ile Pro Gln Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
          100          105          110
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
          115          120          125
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn
          130          135          140
Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145          150          155          160
Gln Ser Gly

```

<210> 122

<211> 189
 <212> PRT
 <213> Homo Sapiens

<400> 122

Gln	Val	Gln	Leu	Glu	Gln	Ser	Gly	Gly	Gly	Val	Val	Gln	Pro	Gly	Arg
1				5				10						15	
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Arg	Tyr
			20					25					30		
Gly	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Lys	Trp	Val
		35					40					45			
Ala	Val	Ile	Trp	Tyr	Asp	Gly	Ser	Asn	Lys	Leu	Tyr	Ala	Asp	Ser	Val
	50					55					60				
Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asn	Ser	Lys	Asn	Thr	Leu	Tyr
65					70				75					80	
Leu	Gln	Met	Asn	Ser	Leu	Arg	Ala	Glu	Asp	Thr	Ala	Val	Tyr	Tyr	Cys
			85					90					95		
Ala	Arg	Asp	Tyr	Tyr	Asp	Asn	Ser	Arg	His	His	Trp	Gly	Phe	Asp	Tyr
		100						105					110		
Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly
	115						120					125			
Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser
	130					135					140				
Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val
145					150				155					160	
Thr	Val	Ser	Trp	Asn	Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe
			165					170						175	
Pro	Ala	Val	Leu	Gln	Ser	Ser	Gly	Leu	Tyr	Ser	Leu	Ser			
			180					185							

<210> 123
 <211> 159
 <212> PRT
 <213> Homo Sapiens

<400> 123

Asp	Ile	Gln	Leu	Met	Thr	Leu	Gln	Ser	Pro	Ser	Ser	Leu	Ser	Ala	Ser
1				5					10					15	
Val	Gly	Asp	Arg	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Ser	Ile	Tyr
		20						25					30		
Ser	Tyr	Leu	Asn	Trp	Tyr	Gln	Gln	Lys	Pro	Gly	Lys	Ala	Pro	Lys	Leu
		35					40					45			
Leu	Ile	Tyr	Ala	Ala	Ser	Ser	Leu	Gln	Ser	Gly	Val	Pro	Ser	Arg	Phe
	50					55					60				
Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Ser	Ser	Leu
65					70				75					80	
Gln	Pro	Glu	Asp	Phe	Ala	Thr	Tyr	Tyr	Cys	Gln	Gln	Ser	Tyr	Ser	Thr
			85					90					95		
Pro	Pro	Thr	Phe	Gly	Gln	Gly	Thr	Lys	Val	Glu	Ile	Lys	Arg	Thr	Val
			100				105						110		
Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp	Glu	Gln	Leu	Lys
	115					120						125			
Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn	Phe	Tyr	Pro	Arg
	130					135				140					
Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn	Ala	Leu	Gln	Ser	Gly	
145					150				155						

<210> 124

<211> 181
 <212> PRT
 <213> Homo Sapiens

<220>

<223> Xaa = any amino acid

<400> 124

Xaa	Xaa	Xaa	Xaa	Xaa	Gln	Ser	Gly	Gly	Gly	Leu	Val	Lys	Pro	Gly	Gly		
1				5					10					15			
Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Thr	Phe	Ser	Asn	Ala		
			20					25					30				
Trp	Met	Thr	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu	Glu	Trp	Val		
			35				40					45					
Gly	Arg	Ile	Lys	Arg	Lys	Thr	Asp	Gly	Gly	Thr	Thr	Asp	Tyr	Ala	Ala		
			50			55					60						
Pro	Val	Lys	Gly	Arg	Phe	Thr	Ile	Ser	Arg	Asp	Asp	Ser	Glu	Asn	Thr		
65					70				75					80			
Leu	Tyr	Leu	Gln	Met	Asn	Ser	Leu	Glu	Thr	Glu	Asp	Thr	Ala	Val	Tyr		
			85					90					95				
Tyr	Cys	Thr	Thr	Val	Asp	Asn	Ser	Gly	Asp	Tyr	Trp	Gly	Gln	Gly	Thr		
			100					105					110				
Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys	Gly	Pro	Ser	Val	Phe	Pro		
			115				120					125					
Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu	Ser	Thr	Ala	Ala	Leu	Gly		
			130			135					140						
Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Glu	Pro	Val	Thr	Val	Ser	Trp	Asn		
145					150					155					160		
Ser	Gly	Ala	Leu	Thr	Ser	Gly	Val	His	Thr	Phe	Pro	Ala	Val	Leu	Gln		
				165					170					175			
Ser	Ser	Gly	Leu	Ser													
			180														

<210> 125
 <211> 159
 <212> PRT
 <213> Homo Sapiens

<220>

<223> Xaa = any amino acid

<400> 125

Xaa	Xaa	Xaa	Xaa	Thr	Gln	Ser	Pro	Leu	Ser	Leu	Pro	Val	Thr	Pro	Gly		
1				5				10						15			
Glu	Pro	Ala	Ser	Ile	Ser	Cys	Arg	Ser	Ser	Gln	Ser	Leu	Leu	His	Ser		
			20					25				30					
Asn	Gly	Tyr	Asn	Tyr	Leu	Asp	Trp	Tyr	Leu	Gln	Lys	Pro	Gly	Gln	Ser		
			35				40					45					
Pro	Gln	Leu	Leu	Ile	Tyr	Leu	Gly	Ser	Asn	Arg	Ala	Ser	Gly	Val	Pro		
			50			55				60							
Asp	Arg	Phe	Ser	Gly	Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Lys	Ile		
65					70				75					80			
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Ala		
			85					90					95				
Leu	Gln	Thr	Pro	Leu	Thr	Phe	Gly	Gly	Gly	Thr	Lys	Val	Glu	Ile	Lys		
			100				105						110				
Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp	Glu		
			115				120					125					
Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn	Phe		

130		135		140
Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val Asp Asn Ala Leu				
145		150		155

<210> 126
 <211> 179
 <212> PRT
 <213> Homo Sapiens

<400> 126

Gln Val Gln Leu Glu Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg				
1	5	10	15	
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Thr Asn Tyr				
	20	25	30	
Gly Leu His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Asp Trp Val				
	35	40	45	
Ala Val Ile Trp Tyr Asp Gly Ser His Lys Phe Tyr Ala Asp Ser Val				
	50	55	60	
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Phe				
65	70	75	80	
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys				
	85	90	95	
Thr Arg Asp Leu Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser				
	100	105	110	
Ser Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser				
	115	120	125	
Arg Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp				
	130	135	140	
Tyr Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr				
145	150	155	160	
Ser Gly Val His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr				
	165	170	175	
Ser Leu Ser				

<210> 127
 <211> 160
 <212> PRT
 <213> Homo Sapiens

<400> 127

Glu Thr Gln Leu Thr Gln Ser Pro Gly Thr Leu Ser Leu Ser Pro Gly				
1	5	10	15	
Glu Arg Val Thr Leu Ser Cys Arg Ala Ser Gln Ser Val Ser Asn Asn				
	20	25	30	
Tyr Leu Ala Trp Tyr Gln Gln Lys Pro Gly Gln Ala Pro Arg Leu Leu				
	35	40	45	
Ile Tyr Gly Ala Ser Ser Arg Ala Thr Gly Ile Pro Asp Arg Phe Ser				
	50	55	60	
Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Thr Ile Ser Arg Leu Glu				
65	70	75	80	
Pro Glu Asp Cys Ala Glu Cys Tyr Cys Gln Gln Tyr Gly Ser Ser Leu				
	85	90	95	
Pro Leu Thr Phe Gly Gly Gly Thr Lys Val Glu Ile Lys Arg Thr Val				
	100	105	110	
Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys				
	115	120	125	
Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg				

130		135		140
Glu Ala Lys Val Gln Trp	Glu Gly Gly Ile Thr	Pro Ser Asn Arg Val		
145	150	155	160	

<210> 128
 <211> 182
 <212> PRT
 <213> Homo Sapiens

<400> 128

Val Gln Cys Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln															
1		5			10					15					
Pro Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe															
	20				25					30					
Ser Ser Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu															
	35				40					45					
Glu Trp Val Ala Val Ile Trp Tyr Asp Gly Ser His Lys Tyr Leu Tyr															
	50				55					60					
Ala Thr Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser															
65		70							75					80	
Lys Asn Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr															
	85								90					95	
Ala Val Tyr Tyr Ser Ala Arg Asp Tyr Tyr Asp Thr Ser Arg His His															
	100								105					110	
Trp Gly Phe Asp Cys Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser															
	115								120					125	
Ala Ser Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg															
	130								135					140	
Ser Thr Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr															
145		150							155					160	
Phe Pro Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser															
	165								170					175	
Gly Val His Thr Phe Pro															
	180														

<210> 129
 <211> 173
 <212> PRT
 <213> Homo Sapiens

<400> 129

Gln Leu Leu Gly Leu Leu Met Leu Trp Val Pro Gly Ser Ser Glu Glu															
1		5							10					15	
Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly Glu															
	20								25					30	
Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser Glu															
	35								40					45	
Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser															
	50								55					60	
Pro Gln Leu Leu Ile Tyr Thr Leu Ser His Arg Ala Ser Gly Val Pro															
65		70							75					80	
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile															
	85								90					95	
Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Cys Cys Met Gln Arg															
	100								105					110	
Val Glu Phe Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile Lys															
	115								120					125	
Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu															

130		135		140											
Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn	Phe
145					150					155					160
Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn			
				165					170						

<210> 130
 <211> 187
 <212> PRT
 <213> Homo Sapiens

<220>
 <223> Xaa = any amino acid

<400> 130															
Xaa	Xaa	Xaa	Xaa	Xaa	Gln	Ser	Gly	Pro	Arg	Leu	Val	Lys	Pro	Ser	Gln
1				5					10					15	
Thr	Leu	Ser	Leu	Thr	Cys	Thr	Val	Ser	Gly	Gly	Ser	Ile	Ser	Ser	Asp
			20					25					30		
Gly	Tyr	Tyr	Trp	Ser	Trp	Ile	Arg	Gln	His	Pro	Gly	Lys	Gly	Leu	Glu
		35					40					45			
Trp	Ile	Gly	Tyr	Ile	Tyr	Tyr	Ser	Gly	Ser	Thr	Phe	Tyr	Asn	Pro	Ser
	50					55					60				
Leu	Lys	Ser	Arg	Val	Ala	Ile	Ser	Val	Asp	Thr	Ser	Lys	Asn	Gln	Phe
65				70					75						80
Ser	Leu	Lys	Leu	Ser	Ser	Val	Thr	Ala	Ala	Asp	Thr	Ala	Val	Tyr	Tyr
				85					90					95	
Cys	Ala	Arg	Glu	Ser	Pro	His	Ser	Ser	Asn	Trp	Tyr	Ser	Gly	Phe	Asp
			100					105					110		
Cys	Trp	Gly	Gln	Gly	Thr	Leu	Val	Thr	Val	Ser	Ser	Ala	Ser	Thr	Lys
		115					120					125			
Gly	Pro	Ser	Val	Phe	Pro	Leu	Ala	Pro	Cys	Ser	Arg	Ser	Thr	Ser	Glu
	130					135					140				
Ser	Thr	Ala	Ala	Leu	Gly	Cys	Leu	Val	Lys	Asp	Tyr	Phe	Pro	Arg	Thr
145					150					155					160
Gly	Asp	Gly	Val	Val	Glu	Leu	Arg	Arg	Pro	Asp	Gln	Arg	Arg	Ala	His
			165					170						175	
Leu	Pro	Gly	Cys	Pro	Thr	Val	Leu	Arg	Thr	Leu					
			180					185							

<210> 131
 <211> 154
 <212> PRT
 <213> Homo Sapiens

<220>
 <223> Xaa = any amino acid

<400> 131															
Xaa	Xaa	Xaa	Xaa	Thr	Gln	Ser	Pro	Asp	Phe	Gln	Ser	Val	Thr	Pro	Lys
1				5					10					15	
Glu	Lys	Val	Thr	Ile	Thr	Cys	Arg	Ala	Ser	Gln	Ser	Ile	Gly	Ser	Arg
			20					25					30		
Leu	His	Trp	Tyr	Gln	Gln	Lys	Pro	Asp	Gln	Ser	Pro	Lys	Leu	Leu	Ile
		35					40					45			
Lys	Tyr	Ala	Ser	Gln	Ser	Phe	Ser	Gly	Val	Pro	Ser	Arg	Phe	Ser	Gly
	50					55					60				
Ser	Gly	Ser	Gly	Thr	Asp	Phe	Thr	Leu	Thr	Ile	Asn	Ser	Leu	Glu	Ala

```

65          70          75          80
Glu Asp Ala Ala Thr Tyr Tyr Cys His Gln Ser Ser Asn Leu Pro Phe
85          90
Thr Phe Gly Pro Gly Thr Lys Val Asp Ile Lys Arg Thr Val Ala Ala
100          105          110
Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115          120          125
Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130          135          140
Lys Val Gln Trp Lys Val Asp Asn Ala Leu
145          150

```

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<210> 132
<211> 180
<212> PRT
<213> Homo Sapiens

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<400> 132
Gln Val Gln Leu Val Glu Gln Ala Gly Gly Gly Val Val Gln Pro Gly
1      5      10      15
Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Arg Ser
20     25     30
Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Lys Trp
35     40     45
Val Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Leu Tyr Thr Asp
50     55     60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65     70     75     80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
85     90     95
Tyr Cys Val Arg Asp Tyr Tyr Asp Asn Ser Arg His His Trp Gly Phe
100    105    110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr
115    120    125
Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser
130    135    140
Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
145    150    155    160
Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Arg Arg Arg Ala
165    170    175
His Leu Pro Gly
180

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<210> 133
<211> 156
<212> PRT
<213> Homo Sapiens

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```

<400> 133
Asp Ile Gln Met Thr Gln Ser Pro Ser Ser Arg Cys Ala Ser Val Gly
1      5      10      15
Asp Arg Val Thr Ile Thr Cys Arg Ala Ser Gln Gly Ile Arg Asn Asp
20     25     30
Leu Ala Trp Tyr Gln Gln Lys Pro Gly Lys Ala Pro Lys Arg Leu Ile
35     40     45
Tyr Ala Ala Ser Ser Leu Gln Ser Gly Val Pro Ser Arg Phe Ser Gly
50     55     60
Ser Arg Ser Gly Thr Glu Phe Thr Leu Thr Ile Ser Ser Leu Gln Pro

```

```

65          70          75          80
Glu Asp Phe Ala Ala Tyr Tyr Cys Leu Gln His Asn Ser Tyr Pro Pro
85
Ser Phe Gly Gln Gly Thr Lys Leu Glu Ile Lys Arg Thr Val Ala Ala
100
Pro Ser Val Phe Ile Phe Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly
115
Thr Ala Ser Val Val Cys Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala
130
Lys Val Gln Trp Lys Val Asp Asn Ala Leu Gln Ser
145          150          155

```

```

<210> 134
<211> 171
<212> PRT
<213> Homo Sapiens

```

```

<400> 134
His Val Gln Val Gln Leu Val Glu Ser Gly Gly Gly Val Val Gln Pro
1      5      10
Gly Arg Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Ile Phe Ser
20     25     30
Arg Tyr Gly Met His Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Lys
35     40     45
Trp Val Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Leu Tyr Ala Asp
50     55     60
Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr
65     70     75     80
Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr
85     90     95
Tyr Cys Ala Arg Asp Tyr Tyr Asp Asn Ser Arg His His Trp Gly Phe
100    105    110
Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser Thr
115    120    125
Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser
130    135    140
Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu
145    150    155    160
Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu
165    170

```

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<210> 135
<211> 174
<212> PRT
<213> Homo Sapiens

```

```

<400> 135
Ser Ala Pro Gly Ala Ala Asn Ala Leu Gly Pro Trp Ile Ser Glu Asp
1      5      10      15
Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro Val Thr Pro Gly Glu
20     25     30
Pro Ala Ser Ile Ser Cys Arg Ser Ser Arg Ser Leu Leu Asp Ser Asp
35     40     45
Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln Ser
50     55     60
Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg Ala Ser Gly Val Pro
65     70     75     80
Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys Ile

```

				85				90					95		
Ser	Arg	Val	Glu	Ala	Glu	Asp	Val	Gly	Val	Tyr	Tyr	Cys	Met	Gln	Arg
			100					105					110		
Val	Glu	Phe	Pro	Ile	Thr	Phe	Gly	Gln	Gly	Thr	Arg	Leu	Glu	Ile	Lys
		115					120					125			
Arg	Thr	Val	Ala	Ala	Pro	Ser	Val	Phe	Ile	Phe	Pro	Pro	Ser	Asp	Glu
		130				135					140				
Gln	Leu	Lys	Ser	Gly	Thr	Ala	Ser	Val	Val	Cys	Leu	Leu	Asn	Asn	Phe
145					150					155					160
Tyr	Pro	Arg	Glu	Ala	Lys	Val	Gln	Trp	Lys	Val	Asp	Asn	Ala		
				165					170						

```
<210> 136
<211> 1428
<212> DNA
<213> Homo Sapiens
```

<400>	136						
cggccgccta	tttaccacaga	gacaggggaga	ggctcttctg	tgtgtagtgg	ttgtgcagag	60	
cctcatgcat	cacggagcat	gagaagacat	tccctctctg	ccacctgctc	ttgtccacgg	120	
ttagcctgct	gtagaggaag	aaggagccgt	cggagtccag	cacggggaggc	gtgggtcttgt	180	
agttgttctc	cggtgccca	ttgtctctcc	actccacggc	gatgtcgctg	gggtagaagc	240	
ctttgaccag	gcaggtcagg	ctgacctggg	tcttggtcat	ctcctctctg	gatgggggca	300	
gggtgtacac	ctgtggctct	cggggctgcc	ctttggcttt	ggagatgggt	ttctcgatgg	360	
aggacgggag	gcctttgttg	gagaccttgc	acttgtactc	cttgccgttc	agccagtcct	420	
ggtgcaggac	ggtgaggacg	ctgaccacac	ggtacgtgct	ggtgaactgc	tcctcccgcg	480	
gctttgtctt	ggcattatgc	acctccacgc	catccacgta	ccagttgaac	tggacctcgg	540	
ggtcttcctg	gtcacagtcc	accaccacgc	acgtgacctc	aggggtccgg	gagatcatga	600	
gagtgtcctt	gggttttg	gggaacagga	agactgatgg	tccccccagg	aactcaggtg	660	
ctgggcatga	tgggcatggg	ggaccatatt	tggactcaac	tctcttgtcc	accttggtgt	720	
tgctgggctt	gtgatctacg	ttgcaggtgt	aggtcttcgt	gcccaggctg	ctggagggca	780	
cggtcaccac	gctgctgagg	gagtagagtc	ctgaggactg	taggacagcc	gggaaggtgt	840	
gcacgccgct	ggtcagggcg	cctgagttcc	acgacaccgt	caccggttcg	gggaagtagt	900	
ccttgaccag	gcagcccagg	gcggctgtgc	tctcggaggt	gctcctggag	cagggcgcca	960	
gggggaagac	ggatgggccc	ttggtggaag	ctgaggagac	ggtgaccagg	gttccctggc	1020	
cccagtagtc	aaacccccag	tgatgtctac	tattatcata	gtaatctctc	gcacagtaat	1080	
acacagccgt	gtcctcggct	ctcaggctgt	tcatttgcag	atacagcgtg	ttcttggaat	1140	
tgtctcttga	gatgggtgaat	cggcccttca	cggagtctgc	atagagttta	ttacttccat	1200	
cataccatat	aactgccacc	catttcagcc	ccttgcttgg	agcctggcgg	accagtgca	1260	
tgccatagcg	actgaagatg	aatccagacg	ctgcacagga	gagtcctcag	gacctccag	1320	
gctggaccac	gcctccccc	gactccacca	gctgcacctg	acactggaca	ccttttaaaa	1380	
tagccacaag	aaaaagccag	ctcagcccaa	actccatggt	ggtcgact		1428	

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<210> 137
<211> 469
<212> PRT
<213> Homo Sapiens
```

<400> 137															
Met	Glu	Phe	Gly	Leu	Ser	Trp	Leu	Phe	Leu	Val	Ala	Ile	Leu	Lys	Gly
1				5					10					15	
Val	Gln	Cys	Gln	Val	Gln	Leu	Val	Glu	Ser	Gly	Gly	Gly	Val	Val	Gln
			20					25					30		
Pro	Gly	Arg	Ser	Leu	Arg	Leu	Ser	Cys	Ala	Ala	Ser	Gly	Phe	Ile	Phe
		35					40					45			
Ser	Arg	Tyr	Gly	Met	His	Trp	Val	Arg	Gln	Ala	Pro	Gly	Lys	Gly	Leu
	50					55					60				
Lys	Trp	Val	Ala	Val	Ile	Trp	Tyr	Asp	Gly	Ser	Asn	Lys	Leu	Tyr	Ala
65					70					75					80


```

Asp Ser Val Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn
      85      90      95
Thr Leu Tyr Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val
      100      105      110
Tyr Tyr Cys Ala Arg Asp Tyr Tyr Asp Asn Ser Arg His His Trp Gly
      115      120      125
Phe Asp Tyr Trp Gly Gln Gly Thr Leu Val Thr Val Ser Ser Ala Ser
      130      135      140
Thr Lys Gly Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr
      145      150      155      160
Ser Glu Ser Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro
      165      170      175
Glu Pro Val Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val
      180      185      190
His Thr Phe Pro Ala Val Leu Gln Ser Ser Gly Leu Tyr Ser Leu Ser
      195      200      205
Ser Val Val Thr Val Pro Ser Ser Ser Leu Gly Thr Lys Thr Tyr Thr
      210      215      220
Cys Asn Val Asp His Lys Pro Ser Asn Thr Lys Val Asp Lys Arg Val
      225      230      235      240
Glu Ser Lys Tyr Gly Pro Pro Cys Pro Ser Cys Pro Ala Pro Glu Phe
      245      250      255
Leu Gly Gly Pro Ser Val Phe Leu Phe Pro Pro Lys Pro Lys Asp Thr
      260      265      270
Leu Met Ile Ser Arg Thr Pro Glu Val Thr Cys Val Val Val Asp Val
      275      280      285
Ser Gln Glu Asp Pro Glu Val Gln Phe Asn Trp Tyr Val Asp Gly Val
      290      295      300
Glu Val His Asn Ala Lys Thr Lys Pro Arg Glu Glu Gln Phe Asn Ser
      305      310      315      320
Thr Tyr Arg Val Val Ser Val Leu Thr Val Leu His Gln Asp Trp Leu
      325      330      335
Asn Gly Lys Glu Tyr Lys Cys Lys Val Ser Asn Lys Gly Leu Pro Ser
      340      345      350
Ser Ile Glu Lys Thr Ile Ser Lys Ala Lys Gly Gln Pro Arg Glu Pro
      355      360      365
Gln Val Tyr Thr Leu Pro Pro Ser Gln Glu Glu Met Thr Lys Asn Gln
      370      375      380
Val Ser Leu Thr Cys Leu Val Lys Gly Phe Tyr Pro Ser Asp Ile Ala
      385      390      395      400
Val Glu Trp Glu Ser Asn Gly Gln Pro Glu Asn Asn Tyr Lys Thr Thr
      405      410      415
Pro Pro Val Leu Asp Ser Asp Gly Ser Phe Phe Leu Tyr Ser Arg Leu
      420      425      430
Thr Val Asp Lys Ser Arg Trp Gln Glu Gly Asn Val Phe Ser Cys Ser
      435      440      445
Val Met His Glu Ala Leu His Asn His Tyr Thr Gln Lys Ser Leu Ser
      450      455      460
Leu Ser Leu Gly Lys
      465

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<210> 138

<211> 741

<212> DNA

<213> Homo Sapiens

<400> 138

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agtcgaccac catggaaacc ccagcgcagc ttctcttcct cctgctactc tggctcccag 60
ataccaccgg agatattgtg atgaccaga ctccactctc cctgcccgtc acccctggag 120

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agccggcctc catctcctgc aggtctagtc ggagcctctt ggatagtgat gatggaaaca 180
cctatttgga ctggtacctg cagaagccag ggcagtctcc acagctcctg atctacacgc 240
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gcacctacag cctcagcagc accctgacgc tgagcaaagc agactacgag aaacacaaag 660
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ggggagagtg ttaggcggcc g 741

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<210> 139

<211> 240

<212> PRT

<213> Homo Sapiens

<400> 139

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Met Glu Thr Pro Ala Gln Leu Leu Phe Leu Leu Leu Leu Trp Leu Pro
1      5      10      15
Asp Thr Thr Gly Asp Ile Val Met Thr Gln Thr Pro Leu Ser Leu Pro
20     25     30
Val Thr Pro Gly Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Arg Ser
35     40     45
Leu Leu Asp Ser Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln
50     55     60
Lys Pro Gly Gln Ser Pro Gln Leu Leu Ile Tyr Thr Leu Ser Tyr Arg
65     70     75     80
Ala Ser Gly Val Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp
85     90     95
Phe Thr Leu Lys Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr
100    105    110
Tyr Cys Met Gln Arg Val Glu Phe Pro Ile Thr Phe Gly Gln Gly Thr
115    120    125
Arg Leu Glu Ile Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe
130    135    140
Pro Pro Ser Asp Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys
145    150    155    160
Leu Leu Asn Asn Phe Tyr Pro Arg Glu Ala Lys Val Gln Trp Lys Val
165    170    175
Asp Asn Ala Leu Gln Ser Gly Asn Ser Gln Glu Ser Val Thr Glu Gln
180    185    190
Asp Ser Lys Asp Ser Thr Tyr Ser Leu Ser Ser Thr Leu Thr Leu Ser
195    200    205
Lys Ala Asp Tyr Glu Lys His Lys Val Tyr Ala Cys Glu Val Thr His
210    215    220
Gln Gly Leu Ser Ser Pro Val Thr Lys Ser Phe Asn Arg Gly Glu Cys
225    230    235    240

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<210> 140

<211> 186

<212> PRT

<213> Homo Sapiens

<220>

<223> Xaa = any amino acid

<400> 140

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Xaa Xaa Xaa Xaa Glu Gln Ser Gly Gly Gly Val Val Gln Pro Gly Arg

```

```

1           5           10           15
Ser Leu Arg Leu Ser Cys Ala Ala Ser Gly Phe Thr Phe Ser Ser Tyr
20
Gly Met Tyr Trp Val Arg Gln Ala Pro Gly Lys Gly Leu Glu Trp Val
35
Ala Val Ile Trp Tyr Asp Gly Ser Asn Lys Tyr Tyr Ala Asp Ser Val
50
Lys Gly Arg Phe Thr Ile Ser Arg Asp Asn Ser Lys Asn Thr Leu Tyr
65
Leu Gln Met Asn Ser Leu Arg Ala Glu Asp Thr Ala Val Tyr Tyr Cys
85
Ala Arg Asp Phe Tyr Asp Ser Ser Arg Tyr His Tyr Gly Met Asp Val
100
Trp Gly Gln Gly Thr Thr Val Thr Val Ser Ser Ala Ser Thr Lys Gly
115
Pro Ser Val Phe Pro Leu Ala Pro Cys Ser Arg Ser Thr Ser Glu Ser
130
Thr Ala Ala Leu Gly Cys Leu Val Lys Asp Tyr Phe Pro Glu Pro Val
145
Thr Val Ser Trp Asn Ser Gly Ala Leu Thr Ser Gly Val His Thr Phe
165
Pro Ala Val Leu Gln Ser Ser Gly Leu Ser
180

```

<210> 141

<211> 143

<212> PRT

<213> Homo Sapiens

<220>

<223> Xaa = any amino acid

<400> 141

```

Xaa Xaa Xaa Xaa Thr Gln Cys Pro Leu Ser Leu Pro Val Thr Pro Gly
1           5           10           15
Glu Pro Ala Ser Ile Ser Cys Arg Ser Ser Gln Ser Leu Leu Asp Ser
20
Asp Asp Gly Asn Thr Tyr Leu Asp Trp Tyr Leu Gln Lys Pro Gly Gln
35
Ser Pro Gln Leu Leu Ile Tyr Thr Val Ser Tyr Arg Ala Ser Gly Val
50
Pro Asp Arg Phe Ser Gly Ser Gly Ser Gly Thr Asp Phe Thr Leu Lys
65
Ile Ser Arg Val Glu Ala Glu Asp Val Gly Val Tyr Tyr Cys Met Gln
85
Arg Ile Glu Phe Pro Ile Thr Phe Gly Gln Gly Thr Arg Leu Glu Ile
100
Lys Arg Thr Val Ala Ala Pro Ser Val Phe Ile Phe Pro Pro Ser Asp
115
Glu Gln Leu Lys Ser Gly Thr Ala Ser Val Val Cys Leu Leu Asn
130

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